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MCDERMOTT WILL & EMERY LLP			EXAMINER	
600 13TH STREET, NW			DAZENSKI, MARC A	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/594,747	<b>Applicant(s)</b> YAMAUCHI, KENICHIRO
	<b>Examiner</b> MARC DAZENSKI	<b>Art Unit</b> 2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 29 April 2010.  
 2a) This action is FINAL.      2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-3-18 and 21 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) 21 is/are allowed.  
 6) Claim(s) 1-3-6 and 8-18 is/are rejected.  
 7) Claim(s) 2 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/GS-68)  
     Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
     Paper No(s)/Mail Date \_\_\_\_\_  
 5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_\_

## DETAILED ACTION

### ***Response to Arguments***

Applicant's arguments filed 29 April 2010 have been fully considered but they are not persuasive.

On page 9 of the remarks, Applicant argues, "nowhere does Shimizu appear to disclose that the formatting converting unit can replace each RDI pack with a navi pack simultaneously with analyzing the pack in each converting process and deleting process...Indeed, paragraph [419] of Shimizu does not do so," and therefore, "Shimizu fails to disclose or suggest a device in which the read section, the navigation pack generator, and the write section operate in parallel as is recited by amended claim 1." The examiner respectfully disagrees.

Though Applicant argues that [0419] of Shimizu does not disclose the claimed limitations, the examiner disagrees. The examiner notes that [0256] discloses that the format conversion unit (400) is included in interface (307) of figure 10; further, [0257] describes interface (307) as "for control of reading and writing AV data on the DVD-R/RW drive (305) and the HDD (306)." Still further, format converting unit (400) is responsible for processing each pack of each VOB unit (114) (see, e.g., the summary explanation in [0411] – [0417]). Thus, the claimed read and write sections as well as the navigation pack generator are part of the same device. Paragraph [0419] discloses the data analysis unit (401) (itself used to control format converting unit (400)) "can simultaneously analyze the pack in **each** converting process and deleting process"

(emphasis added). Since these converting and deleting processes are detailed in the summary paragraphs [0411] - [0417], and further since [0419] discloses that the unit (401) can undergo **each** process simultaneously, the examiner maintains the originally cited sections of Shimizu do in fact read on the limitations of the claim.

Secondly, figures 1 and 6 of Shimizu disclose, respectively, a navi pack (41) and an RDI pack (160) multiplexed in with video, audio, and sub-picture data. Therefore, there must be some kind of addition or multiplexing means between the encoding means and the optical disc or else the data could not be interleaved on the recording medium. Because the navi packs are converted into the RDI packs and then recorded onto a recording medium so that they are multiplexed with video information, the navigation pack generator must be operating in parallel with the read and write means (otherwise the navigation data would not be MUXed with video/audio/sub-picture data present in the VOBUs).

A full rejection of the pending claims appears below.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**Claims 1, 3-4, 8-10, and 13-18** are rejected under 35 U.S.C. 102(e) as being anticipated by Shimizu et al (US PgPub 2003/0152372), hereinafter referred to as Shimizu.

Regarding **claim 1**, Shimizu discloses a format converting apparatus, format converting method, format converting program, storage medium storing format converting program, information recording apparatus, information recording method, information recording program, and storage medium storing information recording program. Further, Shimizu discloses an information record and playback apparatus, which reads on the claimed, "a high speed dubbing apparatus," as exhibited in figure 10; comprising:

control unit (311) which receives AV data encoded according to a video system or video recording system and then subjects it to format converting unit (400) contained within interface (307), which reads on the claimed, "a read section for reading a bit stream conforming to a DVD-VR standard from a first storage device, analyzing the readout bit stream and outputting obtained stream analysis information and the readout bit stream," as disclosed at paragraphs [0261] – [0263] and [0268];

second buffer (411) being utilized in a leader retrieving process in which the leading VOB unit (114) in the VOB (113) is checked for each pack (210), which reads on the claimed, "a first buffer for storing an output from the read section and outputting a bit stream, the first buffer having a capacity equal to or larger than the size of a VOBU (Video Object Unit) of the readout bit stream," as disclosed at paragraphs [0268] and [0319] (wherein if the buffer can read the pack in the VOB in order to determine if it is

the leading pack, then therefore the capacity must be equal to or larger than the size of a VOBU);

format converting unit (400) which replaces each RDI pack with a navi pack (41), which reads on the claimed, "a navigation pack generator for replacing a real-time data information pack in the bit stream output from the first buffer with a navigation pack using the stream analysis information, and outputting a resultant bit stream," as disclosed at paragraph [0268] and exhibited in figure 11;

second buffer (411) being used to generate the navi-pack (41), which reads on the claimed, "a second buffer for storing an output from the navigation pack generator and outputting a bit stream, the second buffer having a capacity equal to or larger than the size of the VOBU of the readout bit stream," as disclosed at paragraph [0268];

second buffer (411) being utilized to generate a navi-pack (41) via the instruction of control unit (311) and then outputting the result to the DVD-R/RW drive (305), which reads on the claimed, "a write section for converting the bit stream output from the second buffer into a bit stream conforming to a DVD-video standard using the stream analysis information, and writing the resultant bit stream in a second storage device," as disclosed at paragraphs [0391] – [0396] and exhibited in figures 17-18; and,

the data analysis unit (401) being able to simultaneously analyze the pack in each converting process and deleting process, which reads on the claimed, "wherein the read section, the navigation pack generator, and the write section operate in parallel," as disclosed at paragraph [0419].

Regarding **claim 3**, the limitations of the claim are rejected in view of the explanation set forth in claim 1 above.

Regarding **claim 4**, the limitations of the claim are rejected in view of the explanation set forth in claim 1 above.

Regarding **claim 8**, Shimizu discloses everything claimed as applied above (see claim 1). Further, Shimizu discloses reading leading video pack (161) and leading audio pack (162) into data analysis unit (401) during a leader retrieving process of a format conversion process, which reads on the claimed, “wherein the read section reads bit streams in parallel from a plurality of said first storage devices in each of which portions of data in the DVD-VR standard format each corresponding to a given number of bits are stored, and the read section outputs the readout bit streams as one bit stream,” as disclosed at paragraph [0374] and exhibited in figures 16-17.

Regarding **claim 9**, the limitations of the claim are rejected in view of the explanation set forth in claim 8 above.

Regarding **claim 10**, the limitations of the claim are rejected in view of the explanation set forth in claim 8 above.

Regarding **claim 13**, the limitations of the claim are rejected in view of the explanation set forth in claim 1 above.

Regarding **claim 14**, Shimizu discloses everything claimed as applied above (see claim 13). Further, Shimizu discloses a format conversion process wherein a PES extension field is deleted, which reads on the claimed, “wherein in the case of dubbing of a portion of the bit stream conforming to the DVD-video standard and read out by the

read section, the navigation pack generator modifies a portion of information included in a navigation pack of the bit stream," as disclosed at paragraphs [0316], [0323], and [0335] – [0336] as well as exhibited in figure 14 and its corresponding text.

Regarding **claim 15**, the limitations of the claim are rejected in view of the explanation set forth in claim 14 above.

Regarding **claim 16**, Shimizu discloses everything claimed as applied above. Further, Shimizu discloses the format conversion process refers to the copy control information "CCI" during the reading of each RDI pack, which reads on the claimed, "further comprising a filter for controlling an output of the bit stream obtained by conversion in the write section and conforming to the DVD-video standard to the second storage device, wherein the read section monitors copyright information on the bit stream read out from the first storage device and conforming to the DVD-VR standard and outputs a monitoring result, and the filter does not output the bit stream conforming to the DVD-video standard to the second storage device when the monitoring result of the copyright information output from the read section indicates prohibition of copying," as disclosed at paragraphs [0213] – [0215], [0310], [0383] and exhibited in figure 17.

Regarding **claim 17**, the limitations of the claim are rejected in view of the explanation set forth in claim 16 above.

Regarding **claim 18**, the limitations of the claim are rejected in view of the explanation set forth in claim 16 above.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 5-6 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu et al (US PgPub 2003/0152372), hereinafter referred to as Shimizu, in view of Fukuchi (US Patent 7,057,986), hereinafter referred to as Fukuchi.**

Regarding claim 5, Shimizu discloses everything claimed as applied above (see claim 1). However, Shimizu fails to disclose the remaining limitations of the claim. The examiner maintains it was well known to include the missing limitations, as taught by Fukuchi.

In a similar field of endeavor, Fukuchi discloses a recording stop processing method and data recording apparatus. Further, Fukuchi discloses D-PRO unit (610) comprising FIFO unit (610a) which both temporarily reads and records stream data and further which adjusts the size of the FIFO's by proportionally dividing the FIFO buffer in accordance with the ratio between recording data and playback data, which reads on the claimed, "further comprising a buffer checking unit for measuring the capacity of a cache memory included in the first storage device and outputting a measurement result by performing reading from the first storage device, wherein the capacity of the first buffer is changed according to the measurement result," as disclosed at column 3, lines 1-30; column 8, lines 45-67; and column 10, line 62 through column 11, line 19.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Shimizu to include D-PRO unit (610) comprising FIFO unit (610a) which both temporarily reads and records stream data and further which adjusts the size of the FIFO's by proportionally dividing the FIFO buffer in accordance with the ratio between recording data and playback data, as taught by Fukuchi, for the purpose of allowing playback while executing seamless recording.

Regarding **claim 6**, the limitations of the claim are rejected in view of the explanation set forth in claim 5 above.

Regarding **claim 11**, Shimizu discloses everything claimed as applied above (see claim 1). However, Shimizu fails to disclose the remaining limitations of the claim. The examiner maintains it was well known to include the missing limitations, as taught by Fukuchi.

In a similar field of endeavor, Fukuchi discloses a recording stop processing method and data recording apparatus. Further, Fukuchi discloses a FIFO buffer that is proportionally divided into multiple FIFO buffers, which reads on the claimed, "comprising a plurality of said first buffers," as disclosed at column 3, lines 9-13; and,

at the beginning of video recording, the MPU issues a write command if it is determined that a recording start size (e.g., one ECC block or more) is stored in the FIFO unit (610a), and further the MPU waits until data to be read out for one VOBU or more are stored in the FIFO buffer and then repeats this process if it is not the end of the cell, which reads on the claimed, "wherein the read section reads a bit stream from a plurality of said first storage devices in each of which a portion of data in the DVD-VR

standard format corresponding to data of a given size is stored and provides an output to a buffer associated with one of the first storage devices from which the readout bit stream has been output, and after reading from one of the first storage devices has started, reading from another one of the first storage devices starts," as disclosed at column 5, line 56 through column 6, line 4; column 7 lines 23-48; and exhibited in figure 7.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Shimizu to include at the beginning of video recording, the MPU issues a write command if it is determined that a recording start size (e.g., one ECC block or more) is stored in the FIFO unit (610a), and further the MPU waits until data to be read out for one VOBU or more are stored in the FIFO buffer and then repeats this process is it is not the end of the cell, as taught by Fukuchi, for the purpose of avoiding buffer over- or underflow problems during a media recording/playback operation.

Regarding **claim 12**, the limitations of the claim are rejected in view of the explanation set forth in claim 11 above.

#### ***Allowable Subject Matter***

**Claim 7** is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**Claim 21** is allowed.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARC DAZENSKI whose telephone number is (571)270-5577. The examiner can normally be reached on M-F, 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on (571)272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2621

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Marsha D. Banks-Harold/  
Supervisory Patent Examiner, Art Unit 2621

/MARC DAZENSKI/  
Examiner, Art Unit 2621